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10/782,034	02/19/2004	Leonard T. Chapman	54767.8065.US00	4269

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EXAMINER

QUIETT, CARRAMAH J

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/782,034

Applicant(s)

CHAPMAN, LEONARD T.

Examiner

Carramah J. Quiett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6,9-14,18,19 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-14,18,19 and 23 is/are allowed.
- 6) ☒ Claim(s) 1-6,9-11,24-27 and 29 is/are rejected.
- 7) ☒ Claim(s) 28 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/15/2006.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 08/19/2006.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment(s), filed on 06/14/2006, have been entered and made of record. Claims 1-6, 9-14, 18-19, and 23-30 are pending.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS), filed on 06/15/2006, has been placed in the application file, and the information referred to therein has been considered as to the merits.

### ***Allowable Subject Matter***

3. The indicated allowability of claims 1-6 and 9-11 is withdrawn in view of the newly discovered reference(s) to Nakatani (U.S. Pat. #5,083,147). Rejections based on the newly cited reference(s) follow.

### ***Response to Arguments***

4. Applicant's arguments filed 06/14/2006 have been fully considered but they are not persuasive.

For claims 24 and 26, Applicant asserts that Jones does not teach or suggest a camera support including a first purge gas port on the first housing connecting into the first interior sealed space, for delivering a purge gas into the first interior sealed space, and a second purge gas port on the second housing connecting into the second interior sealed space, for delivering a purge gas into the second interior sealed space. Particularly, Applicant asserts that Jones does not teach purging the positioning structure with a gas and purging interior sealed spaces of the positioning structure. Examiner respectfully disagrees.

In col. 6, lines 11-41, Jones teaches pressurized hydraulic fluid. Draining fluid *does* constitute purging the system with a gas. Please note that fluid is a gaseous substance as well as liquid. Respectfully, this is well known in the art and is defined in Merriam Webster's Collegiate Dictionary (Tenth Edition).

As far as delivering a purge gas into interior sealed spaces are concerned, Jones teaches that servo valves are each coupled to paired output lines for feeding *interior* chambers of its associated rotary actuator (fig. 3, ref. 98). Please read col. 6, lines 20-26. Then, he states that in fig. 5, the wiper and the pedestal including a seal (TEFLON) define separate chambers 178 and 180 within the *interior* of the cup shaped body (figs. 3/5, ref. 100). Please read col. 4, line 54 – col. 5, line 6. Additionally, in col. 3, lines 46-51, Jones teaches that the recessed *interior* of the spacer creates an internal *sealed* cavity for receiving hydraulic lines for controlling and actuating the positioner. Accordingly, Examiner maintains the 102(e) rejection of claims 24-27 and 29 as being anticipated by U.S. Pat. #6,965,411 (Jones).

### ***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. **Claims 24-27 and 29** are rejected under 35 U.S.C. 102(e) as being anticipated by Jones (U.S. Pat. #6,965,411).

For **claim 24**, Jones discloses a camera support (fig. 8, col. 7, lines 4-41) comprising:  
a first housing (fig. 3, refs. 82-84) having a first interior sealed space (90) (col. 3, lines 46-51);

a first motor (fig. 3, refs. 92,96,98/fig. 7, ref. 48) in the first interior sealed space (fig. 4; col. 3, lines 46-67; col. 4, lines 37-52; col. 6, lines 20-22);

a first purge gas port (fig. 7, refs. 78, 230, 238) on the first housing connecting into the first interior sealed space, for delivering a purge gas into the first interior sealed space (col. 6, lines 11-41);

a second housing (fig. 3, refs. 82-84) having a second interior sealed space (90), and with the second housing linked to the first motor for rotational movement of the second housing relative to the first housing about a first axis (52) (col. 3, lines 4-24 and 46-51);

a second motor (fig. 3, refs. 92,96,98/fig. 7, ref. 54) in the second interior sealed space (fig. 4; col. 3, lines 15-20 and 46-67; col. 4, lines 37-52; col. 6, lines 20-22);

a second purge gas port (fig. 7, refs. 80, 158, 160) on the second housing connecting into the second interior sealed space, for delivering a purge gas into the second interior sealed space (col. 6, lines 11-41);

a third housing (250) linked (254) to the second motor for rotational movement of the third housing relative to the second housing about a second axis (58) substantially perpendicular to the first axis (col. 7, lines 4-19).

For **claim 25**, Jones discloses the camera support further comprising a third interior sealed space (fig. 3, ref. 90) in the third housing (col. 3, lines 46-51; col. 7, lines 22-31), and a third motor (fig. 3, refs. 92,96,98/fig. 8, ref. 250) in the third interior sealed space (fig. 4; col. 3, lines 15-20 and 46-67; col. 4, lines 37-52; col. 6, lines 20-22; col. 7, lines 4-31), and a camera support plate (fig. 8, ref. 260) rotatably attached (ref. 256) to the third housing and linked to the

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third motor for rotation of the camera support plate relative to the third housing about a third axis substantially perpendicular to the first axis and to the second axis (col. 7, lines 4-31).

For **claim 26**, Jones discloses a camera support (fig. 8, col. 7, lines 4-41) comprising:

a first housing (fig. 3, refs. 82-84) having a first interior sealed space (90) (col. 3, lines 46-51);

a first purge gas port (fig. 7, refs. 78, 230, 238) on the first housing connecting into the first interior sealed space, for delivering a purge gas into the first interior sealed space (col. 6, lines 11-41);

a first motor (fig. 3, refs. 92,96,98/fig. 7, ref. 48) supported by the first housing (fig. 4; col. 3, lines 46-67; col. 4, lines 37-52; col. 6, lines 20-22);

a second housing (fig. 3, refs. 82-84) having a second interior sealed space (90), and with the second housing linked to the first motor for rotational movement of the second housing relative to the first housing about a first axis (52) (col. 3, lines 4-24 and 46-51);

a second motor (fig. 3, refs. 92,96,98/fig. 7, ref. 54) supported by the second housing (fig. 4; col. 3, lines 15-20 and 46-67; col. 4, lines 37-52; col. 6, lines 20-22);

a second purge gas port (fig. 7, refs. 80, 158, 160) on the second housing connecting into the second interior sealed space, for delivering a purge gas into the second interior sealed space (col. 6, lines 11-41);

a third housing (250) linked (254) to the second motor for rotational movement of the third housing relative to the second housing about a second axis (58) substantially perpendicular to the first axis (col. 7, lines 4-19).

For **claim 27**, Jones discloses the camera support (fig. 8) with the second housing linked to the first motor by a first arm (68), and with the second housing securable onto the first arm at multiple positions on the first arm (col. 7, lines 4-19), and with third housing linked to the second motor by a second arm (254), and with third housing securable onto the second arm at multiple positions on the second arm (col. 7, lines 4-19).

For **claim 29**, Jones discloses the camera support further comprising an adjustable brake (inherently –hydraulic pressure directed to the servo valve 80) to set braking force against rotation of the second housing about the first axis (col. 6, lines 20-57).

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. **Claims 1-3, 5, and 9-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman (U.S. Pat. #6,517,207) in view of Lindsay (U.S. Pat. #5,697,757) and Nakatani (U.S. Pat. #5,083,147).

For **claim 1**, Chapman discloses a camera head (figs. 1/8, 42, 44, 60, 68/[fig. 8, 280], 124) comprising:

a pan frame (fig. 4B, refs. 42, 124/140 and figs. 22-24, ref. 804), including a pan housing (fig. 4, ref. 124/140), a pan arm (fig. 4B, ref. 42), rotatably attached to the pan housing (col. 6, lines 56-65) and a pan motor (figs. 22-24, ref. 804) for moving the pan arm relative to the pan housing (col. 17, lines 1-10);

a tilt frame (fig. 2, refs. 44[80/84/88], 46, and 60) including tilt housing (fig. 4B, ref. 46), a tilt arm (fig. 2, refs. 44[80/84/88]) rotatably attached to the tilt housing (figs. 4B/7; col. 7, lines 53-62 and col. 8, lines 6-24) and a tilt motor (figs. 22-24, ref. 804) for moving the tilt arm relative to the tilt housing (col. 17, lines 1-10), and with the tilt frame securable (figs. 4B and 7, refs. 220/222) onto the pan arm at multiple positions (col. 5, lines 49-54; col. 12, lines 18-30); and

a roll frame (fig. 8, ref. 286) having a roll housing (fig. 8, 284/294) and a camera platform (fig. 8, ref. 272) rotatably attached (fig. 8, ref. 276/278) to the roll housing (col. 12, lines 31-44 and 50-63), and a roll motor (figs. 22-24, ref. 804) for moving the camera platform relative to the roll housing (col. 17, lines 1-10), and with the roll frame securable (figs. 3B and 8, refs. 160/198/202/220) to the tilt arm at multiple positions along the tilt arm (col. 12, lines 31-44 and 50-63).

a pan lock pin (figs. 4B/7, ref. 220-222) moveable between a lock position where the pan lock pin extends between the pan housing and the pan arm (fig. 4B, ref. 42) to prevent movement between them, to an unlock position (col. 7, line 53 – col. 8, line 5).

Chapman does not disclose the tilt frame securable onto the pan arm at multiple positions along the pan arm. In the same field of endeavor, Lindsay discloses the tilt frame (36) securable (37) onto the pan arm (35) at multiple positions along the pan arm (col. 4, lines 14-28). Both Chapman and Lindsay have components on the tilt arm for stabilizing or balancing the camera support (Chapman, col. 5, lines 55-57) (Lindsay, col. 4, lines 14-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve Chapman's tilt frame securable onto the pan arm at multiple positions along the pan arm. This



gives the tilt frame manufacturer an alternative for counterbalancing the arm (Lindsay, col. 4, lines 29-38).

Additionally, Chapman (nor Lindsay) does not expressly teach wherein the pan lock pin is withdrawn from one of the pan housing and the pan arm, to allow rotational movement between them.

In a similar field of endeavor, Nakatani teaches a pan lock pin (fig. 1, refs. 26-27, 32-33) moveable between a lock position where the pan lock pin extends between the pan housing (15) and the pan arm (22-23) to prevent movement between them, to an unlock position wherein the pan lock pin is withdrawn from one of the pan housing and the pan arm, to allow rotational movement between them (col. 5, line 46 – col. 6, line 27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the pan lock pin of Chapman by withdrawing the pan lock pin from one of the pan housing and the pan arm, to allow rotational movement between. This improvement provides panning, which is readily accessible (Nakatani, col. 2, lines 1-12).

For **claim 2**, Chapman, as modified by Lindsay and Nakatani, further discloses a camera head with the tilt frame (fig. 2, refs. 44[80/84/88], 46, and 60) slidably (in a pivotal direction – fig. 4B, ref. 46) attached (figs. 4B and 7, refs. 220/222) to the pan frame (fig. 4, refs. 42/124/140). Chapman also discloses a camera head including a locking element (figs. 4B and 7, refs. 220/222) movable into an open position\*\*, to allow sliding movement between the pan frame and the tilt frame\*\*, for adjusting the relative position of the tilt frame to the pan frame\*\*, and with the locking element also moveable into a locked position (col. 7, line 53 – col. 8, line

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5), to lock the tilt frame into a fixed position on the pan frame (col. 7, line 53 – col. 8, line 5).

Also see figs. 1, 2, 4B, and 7; and read col. 12, lines 18-30.

**\*\*Note:** The locking element (figs. 4B and 7, refs. 220/222), which is apart of the tilt housing (fig. 4B, ref. 46) [and therefore the tilt frame] is movable into an open position, to allow sliding movement between the pan frame and the tilt frame because arm (42 [120]) the pan frame extends upward to the lateral stubs (50) (col. 6, line 67 – col. 7, line 3). Then, in col. 7 line 53 – col. 8 line 5, Chapman explains how the locking element is tightened. Therefore, it is inherent for the locking element movable to be into an open position (or loosened) because the locking element is used for the operation of the panning and/or tilting in a sliding pivotal direction (col. 7 line 53 – col. 8 line 5). The locking element adjusts the relative position of the tilt frame to the pan frame because the pan frame, which includes the pan arm (42 [120]), is connected to the tilt frame, which includes the tilt housing (46).

For **claim 3**, Chapman, as modified by Lindsay and Nakatani, discloses a camera head further comprising (Chapman, figs. 22-24) a worm gear (ref. 810) on the pan motor (ref. 804) meshing with a drive gear (ref. 806) [col. 17, lines 13-16] linked to the pan (ref. 278) through a clutch (ref. 830). Please note that when the worm gear of Chapman is sandwiched between the components of the clutch assembly (col. 17, lines 31-40), the drive gear is linked to the pan through the clutch (see fig. 22, refs. 830). Additionally, the motor can be applied to panning as well as tilting (Chapman, col. 17, lines 1-10). Therefore, it is inherent for the shaft (278) illustrated in figs. 22-24 to be replaced by a panning shaft (fig. 4B, ref. 122). Please read Chapman, col. 17, lines 1-50.

For **claim 5**, Chapman, as modified by Lindsay and Nakatani, discloses a camera support further comprising (fig. 4B) a sealed bearing (ref. 130) in the pan housing (ref. 140), providing a low friction (drag or braking force) rotation connection between the pan arm (ref. 42) and the pan housing (Chapman, col. 6, line 56 – col. 7, line 3).

For **claim 9**, Chapman, as modified by Lindsay and Nakatani, discloses a camera head further comprising (in fig. 7) an adjustable pan brake (refs. 220/222) to set pan axis braking force (Chapman, col. 7, line 53 – col. 8, line 5).

For **claim 10**, Chapman, as modified by Lindsay and Nakatani, discloses a camera head further comprising a pan shaft (fig. 4B, ref. 122) in the pan housing, with the pan motor (figs. 22-24, ref. 804) connecting to the pan shaft via gearing (figs. 22-24, ref. 806), pan shaft sealed (fig. 4B, ref. 125) against the pan housing and rotatable within the pan housing (col. 6, lines 56-59) when driven by the pan motor. The motor can be applied to panning as well as tilting (col. 17, lines 1-10). Therefore, it is inherent for the shaft (278) illustrated in figs. 22-24 to be replaced by a panning shaft (fig. 4B, ref. 122). Please read Chapman, col. 17, lines 1-50.

9. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman (U.S. Pat. #6,517,207) in view of Lindsay (U.S. Pat. #5,697,757) and Nakatani (U.S. Pat. #5,083,147) as applied to claim 1 above, and further in view of Fantone et al. (U.S. Pat. Pub. #2001/0048468).

For **claim 4**, Chapman, as modified by Lindsay and Nakatani, further discloses a slip ring (fig. 7, ref. 234) assembly in each of the pan, tilt, and roll housings (col. 7, lines 53-62 and col. 8, lines 6-17), and cable segments apparently around the pivot points (col. 11, lines 38-44).

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However, he does not disclose water proof cable segments extending between the slip ring assemblies. In a similar field of endeavor, Fantone teaches a surveillance video system in fig. 2, with an imager (116) connected to a waterproof cable (12). Please read pages 3-4, paragraphs 33-34. Both Chapman and Fantone have housings which capable of vertical and horizontal movements (page 3, paragraph 33). In light of the teaching in Fantone, it would have been obvious to one of ordinary skill in the art at the time the invention was made to improve Chapman's camera support with water proof cable segments extending between the slip ring assemblies in order to detect underwater creatures such as fish (Fantone, page 1, paragraphs 5-6).

10. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman (U.S. Pat. #6,517,207) in view of Lindsay (U.S. Pat. #5,697,757) and Nakatani (U.S. Pat. #5,083,147) as applied to claim 1 above, and further in view of Kahn (U.S. Pat. #5,463,432).

For **claim 6**, Chapman, as modified by Lindsay and Nakatani, does not specifically disclose a camera support further comprising a first pair of waterproof connectors between the pan housing and the tilt housing, a second pair of waterproof connectors between the tilt housing and the roll housing, and a third pair of waterproof connectors on the camera platform. However, Chapman illustrates connectors between the pan housing and the tilt housing in fig. 4B, connectors between the tilt housing and the roll housing in fig. 8 and connectors on the camera platform (fig. 8). Then in col. 7 lines 53-62, Chapman states that the pivot joints, which aid in panning, tilting, and rolling between each corresponding housing, each have similar structures. Although Chapman does not specifically teach waterproof connectors between

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housing, he does teach that a pair of Teflon rings is located within the pivot structures (col. 8, lines 6-17).

In the same field of endeavor, Kahn teaches discloses a camera support (in fig. 2) further comprising a first pair of waterproof connectors between the pan housing and the tilt housing (col. 3, line 58 – col. 4, line 16). Examiner takes Official Notice in that it would have been obvious to have a camera support further comprising a second pair of waterproof connectors between the tilt housing and the roll housing, and a third pair of waterproof connectors on the camera platform because both Chapman and Kahn teach connectors with bearings and ring sealants (Kahn, col. 3, line 58 – col. 4, line 16; Chapman, col. 7 line 63 – col. 8, line 29); and Chapman's tilt, pan, and roll housings (pivot structures) are similar (Chapman, col. 7 lines 53-62). In light of the teaching of Kahn, it would have been obvious to one of ordinary skill in the art at the time the invention was made to improve Chapman's camera support with a first pair of waterproof connectors between the pan housing and the tilt housing, a second pair of waterproof connectors between the tilt housing and the roll housing, and a third pair of waterproof connectors on the camera platform in order to avoid slippage, reduce friction, and prevent contamination between the housings (Kahn, col. 3 lines 65-66; Chapman, col. 7 line 63 – col. 8, line 29).

11. **Claims 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman (U.S. Pat. #6,517,207) in view of Lindsay (U.S. Pat. #5,697,757) and Nakatani (U.S. Pat. #5,083,147) as applied to claim 1 above, and further in view of Sondergard (U.S. Pat. #5,316,412).

For **claim 11**, Chapman, as modified by Lindsay and Nakatani, does not specifically disclose a camera support further comprising seals in the pan housing, the tilt housing and the roll housing, for sealing water out of each of the housings, to allow for underwater operation of the camera support. However, Chapman illustrates connectors between the pan housing and the tilt housing in fig. 4B, connectors between the tilt housing and the roll housing in fig. 8 and connectors on the camera platform (fig. 8). Then in col. 7 lines 53-62, Chapman states that the pivot joints, which aid in panning, tilting, and rolling between each corresponding housing, each have similar structures. Although Chapman does not specifically teach waterproof connectors between housing, he does teach that a pair of Teflon rings (fig. 7, ref. 234) is located within the pivot structures (col. 8, lines 6-17).

In a similar field of endeavor, Sondergard teaches a camera support (in fig. 5) further comprising seals in the pan housing and the tilt housing, for sealing water out of each of the housings, to allow for underwater operation of the camera support (col. 2, lines 52-55 and col. 3, lines 29-47). Examiner takes Official Notice in that it would have been obvious to have a camera support further comprising seals in the roll housing, for sealing water out of each of the housings, to allow for underwater operation of the camera support. Both Chapman and Sondergard teach sealing the housings (Sondergard, col. 3, lines 29-47; Chapman, col. 7 line 63 – col. 8, line 29); and Chapman's tilt, pan, and roll housings (pivot structures) are similar (Chapman, col. 7 lines 53-62). In light of the teaching of Sondergard, it would have been obvious to one of ordinary skill in the art at the time the invention was made to improve Chapman's camera support with seals in the pan housing, the tilt housing and the roll housing, for sealing water out of each of the housings in order to avoid arduous maintenance (Sondergard,

col. 1, lines 10-25) and to allow for underwater operation of the camera support in order to avoid slippage, reduce friction, and prevent contamination between the housings.

***Allowable Subject Matter***

12. **Claims 28 and 30** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Claim 28** is allowed because the prior art does not teach or fairly suggest the camera support of claim 26 further comprising a lock pin moveable between a lock position, where the lock pin extends between the first housing and the second housing, to prevent movement between them, and an unlock position, wherein the lock pin is withdrawn from one of the first and second housings, to allow rotational movement between them.

**Claim 30** is allowed because the prior art does not teach or fairly suggest the camera support of claim 26 further comprising a first shaft rotatably supported within the first housing, with the second housing attached to the first shaft, and the first shaft sealed against the first housing, a first gear linked to the first shaft through a first clutch, and with the first gear linked to the first motor, and *one or more clutch drive pins sealed against the first housing, and moveable from a first position, wherein with first motor drives the first shaft through the first clutch, to a second position, wherein the first shaft can rotate free of the motor.*

13. **Claims 12-14 and 19** are allowed.

**Claim 12** is allowed because the prior art does not teach or fairly suggest the camera head comprising a first shaft rotatably supported within the first housing, with the second frame

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attached to the first shaft, and the first shaft sealed against the first housing, a first gear linked to the first shaft through a first clutch, and with the first gear linked to the first motor, and *one or more clutch drive pins sealed against the first housing, and moveable from a first position, wherein with first motor drives the first shaft through the first clutch, to a second position, wherein the first shaft can rotate free of the motor,* in combination with other claimed elements.

**Claims 13-14 and 19** are allowed because they are dependent on claim 12.

14. **Claims 18 and 23** are allowed (as previously discussed in the previous Office Actions (mail date: 10/05/2005 and 3/22/2006)).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carramah J. Quiett whose telephone number is (571) 272-7316. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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NGUYEN VU  
SUPERVISORY PATENT EXAMINER